

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A process for preparing polyisobutene having a number-average molecular weight of from 400 to 50 000 and a content of comprising methyldene groups of more than 50 mol% methyldene groups, ~~in which comprising the following steps:~~

- a) isobutene is polymerized in the presence of a catalyst which comprises a halogenated Lewis acid, resulting in a polyisobutene,
- b) the catalyst is removed and/or deactivated, and
- c) the ~~resulting~~ polyisobutene is contacted with a zeolite of an average pore size of from 5 to 15 Å.

Claim 2 (Original): The process according to claim 1, in which the isobutene is polymerized in the presence of a diluent to obtain a solution of the polyisobutene in the diluent, and the solution of the polyisobutene is contacted with the zeolite.

Claim 3 (Currently Amended): The process according to claim 1, ~~in which~~ wherein the polyisobutene ~~or the solution of the polyisobutene~~ is also contacted with ~~[[an]]~~ at least one acid scavenger which is selected from the group consisting of: bases, nitrile compounds and immobilized bases.

Claim 4 (Currently Amended): The process according to claim 3, ~~in which the base is~~ wherein the polyisobutene is contacted with at least one acid scavenger selected from the group consisting of the following bases: ammonia and organic amines.

Claim 5 (Currently Amended): The process according to claim 3, ~~in which the nitrile compound is~~ wherein the polyisobutene is contacted with at least one acid scavenger selected from the group consisting of the following nitrile compounds: acetonitrile, propionitrile and benzonitrile.

Claim 6 (Currently Amended): The process according to claim 3, ~~in which the immobilized base is~~ wherein the polyisobutene is contacted with at least one acid scavenger selected from the group consisting of the following immobilized bases: alumina and alumina which is doped with hydroxides, oxides, carbonates, hydrogencarbonates and/or cyanides.

Claim 7 (Currently Amended): The process according to claim 1, ~~in which~~ wherein the water content of the polyisobutene ~~or of the solution of the polyisobutene~~ is reduced to less than 10 ppm before the zeolite treatment.

Claim 8 (Currently Amended): The process according to claim 7, ~~in which~~ wherein the water content is reduced by contacting the polyisobutene ~~or the solution of the polyisobutene~~ with a zeolite of an average pore size of 4 Å or less.

Claim 9 (Currently Amended): The process according to claim ~~[[2]]~~ 1, ~~in which~~ wherein the Lewis acid is boron trifluoride.

Claim 10 (Previously Presented): The process according to claim 2, in which the diluent comprises C₄ hydrocarbons other than isobutene.

Claim 11 (Currently Amended): The process according to claim [[3]] 2, ~~in which~~ wherein the isobutene is polymerized in the presence of a diluent to obtain a solution of the polyisobutene in the diluent and, before the contacting with the zeolite, the diluent is removed fully or partly or replaced by isobutene oligomers.

Claim 12 (New): The process according to claim 2, wherein the solution of the polyisobutene is also contacted with at least one acid scavenger selected from the group consisting of: bases, nitrile compounds and immobilized bases.

Claim 13 (New): The process according to claim 12, wherein the solution of the polyisobutene is contacted with at least one acid scavenger selected from the group consisting of the following bases: ammonia and organic amines.

Claim 14 (New): The process according to claim 12, wherein the solution of the polyisobutene is contacted with at least one acid scavenger selected from the group consisting of the following nitrile compounds: acetonitrile, propionitrile and benzonitrile.

Claim 15 (New): The process according to claim 12, wherein the solution of the polyisobutene is contacted with at least one acid scavenger selected from the group consisting of the following immobilized bases: alumina and alumina which is doped with hydroxides, oxides, carbonates, hydrogencarbonates and/or cyanides.

Claim 16 (New): The process according to claim 2, wherein the water content of the solution of the polyisobutene is reduced to less than 10 ppm before the zeolite treatment.

Claim 17 (New): The process according to claim 16, wherein the water content is reduced by contacting the solution of the polyisobutene with a zeolite of an average pore size of 4 Å or less.